

Post-Deployment Health Care

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TRICARE Management Activity
Office of the Chief Medical Officer
Six Skyline Place, Suite 319
5109 Leesburg Pike
Falls Church, Virginia 22041

Submitted By

Birch & Davis Associates, Inc.
(Renamed ACS Federal Healthcare, Inc.)

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ACS Federal Healthcare, Inc.
5270 Shawnee Road
Alexandria, Virginia 22312
(703) 310-0000



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EXECUTIVE SUMMARY

The Post-Deployment Health Care study (for fiscal year 2003 (FY03)) focused on two areas. The first was referral completion for Service Members (SMs) with a recommended health care referral upon return from a deployment. The second was implementation of the Clinical Practice Guideline for Post-Deployment Health Evaluation and Management (PDH CPG).

Referral completion examined the Post-Deployment Health Assessment Forms (DD Form 2796) with a referral indicated of a sample of 500 SMs completing deployment from February 1, 2002 through January 31, 2003. The sample was drawn from a total of 3,738 forms completed during that time interval. The referrals were matched to the SM's record of outpatient visits to Military Treatment Facilities (MTFs) and civilian health care providers using the Military Health System Management Analysis and Reporting Tool (M2). For visits where the recommended referral and the visit matched, the time interval from the date of the referral recommendation to the visit was calculated. This time period became the time interval for referral completion. For SMs with completed referrals, the primary diagnoses for the visits were examined to describe the types of conditions for which referrals were recommended.

The final referral sample contained 477 usable forms with 533 recommended referrals. The most frequently recommended referrals were found in the Other (46 percent; n=243), orthopedic (20 percent, n=106) and dental (14 percent, n=76) categories. Among the Other category, more than half (n=129) of the referrals noted were for Primary Care Manager (PCM) referrals upon return to the home duty station. Ninety referrals, including 76 dental referrals, could not be evaluated for completion since a record of these encounters was not contained in the M2 database. Completion was documented for 202 (46 percent) of the 433 referrals recommended. The majority of referrals were completed within 30 days, and over 80 percent were completed within 90 days. The diagnosis groups with the greatest number of referrals were Factors Influencing Health Status and Contact with Health Services (34 percent, n=68), Diseases of the Musculoskeletal System and Connective Tissue (29 percent, n=58), and Injury and Poisoning (6 percent, n=12).

PDH CPG implementation examined the use of the V70.5_6 diagnosis code (*V code*) to identify deployment related outpatient visits, and reviewed a sample of outpatient medical records at MTF primary care clinics to confirm PDH CPG implementation. The V code use examined the primary and secondary diagnosis codes assigned to all outpatient visits at MTFs from February 1, 2002 through January 31, 2003. These data were obtained from M2. The number and types of diagnoses were described. The outpatient records review was conducted from April through July 2003 and examined a sample of records following primary care visits to confirm that the PDH CPG had been implemented. MTFs were credited with PDH CPG implementation if patients were asked, "Is this visit deployment-related?"

V codes were used as a primary diagnosis for 2,796 outpatient visits and as a secondary diagnosis for another 928 visits. When the V code appeared as a primary diagnosis, 37 percent (n=1,039) of the visits contained a secondary diagnosis, with diagnoses in the Factors Influencing Health Status and Contact with Health Services (V01-V82) diagnosis group being

most frequent (36 percent, n=378). When the V code appeared as a secondary diagnosis, primary diagnoses in the Mental Disorders diagnosis group (International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) codes 290-319) were most frequent (24 percent, n=224). For PDH CPG implementation at the MTF primary care clinic level, a total of 5,629 outpatient records were reviewed at primary care clinics of 75 different MTFs. Beneficiaries identified visits as being deployment-related for 49 (0.9 percent) of the visits. Among the 75 MTFs where site visits were conducted, 68 MTFs provided documentation of PDH CPG implementation. When the implementing MTFs from this year's study were added to the implementing MTFs from last year's study, the total number of MTFs with a parent Defense Medical Information System (DMIS) Identification (ID) designation that had implemented the PDH CPG was 126, or 93.3 percent of the 135 sites available for survey.

The Post-Deployment Health Care study for FY03 concluded that:

- The 46 percent referral completion rate for SMs returning from deployment can be attributed to a combination of communication and operational issues that involve the SM, the provider, and the health care system
- The DD Form 2796 and the administrative data used to track referral completion patterns cannot be used to measure and monitor deployment referral completions at this time
- The use of the V code for deployment-related concerns probably under-represents the true occurrence of deployment-related health visits in the Direct Care System (DCS)
- Implementation of the PDH CPG has been started throughout most of the DCS

Recommendations based on the study findings included:

- Follow-up to the referral completion portion of this study should capture sufficient detail to confirm referral completion, determine that the referral was unnecessary, or confirm that the condition generating the referral was treated
- The chain of events that make up the referral process should be examined to identify areas that require changes that will facilitate referral completion and create shared responsibility between the individual and the health care system
- Any future study of the PDH CPG should change focus to compliance with its recommendations and the quality of care it creates

1.0 INTRODUCTION

In February 2002, the Clinical Practice Guideline for Post-Deployment Health Evaluation and Management (PDH CPG) was implemented in the Military Health System (MHS). The PDH CPG had been developed by experts in the Department of Defense (DoD) MHS and the Veterans Health Administration (VHA) upon recommendations from the Institute of Medicine (IOM) to change service delivery for deployment-related health concerns from a programmatic approach to an integrated primary care approach to improve the continuity of care and enhance therapeutic relationships (The Clinical Practice Guideline for Post-Deployment Health Evaluation and Management Work Group, 2001).

During fiscal year 2002 (FY02) a PDH CPG implementation study was conducted (Birch & Davis Associates, Inc. (renamed ACS Federal Healthcare, Inc.), 2002). About 56 percent (n=67) of the MTFs in the sample had implemented the PDH CPG by the end of the summer, 2002. The remaining MTFs intended to implement the PDH CPG by January 2003.

The purpose of the fiscal year 2003 (FY03) study of post-deployment health was threefold. First, the study measured the timeliness of service members' primary care and specialty referrals identified on the Post-Deployment Health Assessment Form (DD Form 2796). Second, the study repeated the analysis of the use of the V70.5_6 diagnosis code on Standard Ambulatory Data Records (SADRs), which was developed to identify deployment related visits. Third, this study examined PDH CPG implementation at MTFs that were not included in the FY02 PDH CPG implementation study. The research questions explored include:

1. What portion of the AD beneficiaries returning from deployment with a referral indicated on the DD Form 2796 had the referral completed? How long did it take to complete the referrals indicated?
2. What are the most common diagnoses among the completed referrals for AD beneficiaries returning from deployment with a referral indicated on the DD Form 2796?
3. What are the most common diagnoses associated with deployment-related visits among MTF outpatient visits based on V70.5_6 diagnosis code?
4. What percentage of the MTFs has implemented the PDH CPG?

2.0 BACKGROUND

In January 2002, the Assistant Secretary of Defense for Health Affairs, Dr. William Winkenwerder, directed the implementation of the Clinical Practice Guideline for Post-Deployment Health Evaluation and Management (PDH CPG) to address all deployment-related health care needs for sponsors and family members (Winkenwerder, 2002, January). The Department of Defense (DoD) implemented the PDH CPG on February 1, 2002. In the PDH CPG, the term *deployment-related* is defined as any health care issue that an Active Duty (AD) or Non-Active Duty (NAD) beneficiary believes is related to a deployment (The Post-Deployment Health Evaluation and Management Working Group, 2000).

In fiscal year 2002 (FY02), the TRICARE Management Activity (TMA) contracted with ACS Federal Healthcare, Inc. (ACS FHC) to study PDH CPG implementation in the Military Treatment Facilities (MTFs). The study examined implementation at the organizational level, the individual beneficiary level, and the electronic record level. At the organizational level, all MTFs were asked if they had implemented the PDH CPG in their primary care clinics. Nearly 70 percent (n=97) of Military Treatment Facilities (MTFs) reported having implemented the PDH CPG. Implementation at the beneficiary level was measured by reviewing outpatient records to determine if beneficiaries were being asked if their current health care visit was related to a previous deployment. Only 56 percent (n=67) of MTFs had documented this question in the initial patient assessment on the Chronological Record of Medical Care (Standard Form (SF) 600). Electronic record implementation referred to whether the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) code, V70.5_6 (*Post-Deployment Prevention Examinations*) was properly used on the patient's electronic outpatient record (Standard Ambulatory Data Record (SADR)). The code was used for only 2,215 visits out of approximately 31 million visits during all of FY02.

Since PDH CPG implementation was not completed throughout the Military Healthcare System (MHS) during FY02, TMA authorized a follow-up study to the FY02 study. The two components that examined PDH CPG implementation at the beneficiary level and the electronic record level remained the same as in the FY02 study. However, a third component was added to the fiscal year 2003 (FY03) study that examined the time to completion for referrals documented on the DD Form 2796.

3.0 METHODOLOGY

This study included four PDH performance measures: referral time to completion, deployment-related diagnosis patterns, use of the V70.5_6 diagnosis code to identify deployment-related outpatient visits in the electronic administrative database, and PDH CPG implementation among MTFs during fiscal year 2003 (FY03). Since each measure required a distinctly different data set for evaluation, the methodology for each measure is presented separately.

3.1 Timeliness of Deployment-Related Primary Care and Specialty Referrals

This study measure was based on data provided to ACS FHC for analysis through an agreement between the Health Affairs office of TMA and the Army Medical Surveillance Activity (AMSA). AMSA, an organizational element of the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) located on the Walter Reed military reservation in Washington, D.C., provided the data file. AMSA maintains a database of all Post-Deployment Health Assessment Forms (DD Form 2796) that are completed by Service Members (SMs) when they return from deployment. See Appendix A for a copy of the DD Form 2796¹.

3.1.1 Study Sample

AMSA provided two data sets that were used to construct the study sample. One data set contained a listing of all 3,738 SMs that had a referral indicated on the DD Form 2796 during the time period February 1, 2002 through January 31, 2003. The second data set contained photocopies of 500 DD Form 2796s that AMSA randomly selected from the population of 3,738 forms. Data from the 500 forms were entered into an electronic database. Accuracy of the data entry was checked using a double entry procedure that identified all cases and data fields for which both entries were not the same. Each data field with two different entries was adjudicated. Person identifying information collected in the database was matched back to the data set containing the original 3,738 SMs with a referral indicated. Fourteen forms did not match the original list and were discarded. One form did not have a referral indicated and was discarded. Eight additional forms were discarded because the referral indicated was Other, with no indication of the type of referral. The final sample contained 477 usable DD Form 2796s.

3.1.2 Data Collection

Outpatient visit data were collected for both MTF visits (SADR) and paid claims Health Care Service Record Non-Institutional (HCSR-N) using the Military Health System Management Analysis and Reporting Tool (M2) for all SMs with a referral indicated from February 1, 2002 through January 31, 2003. Outpatient visits were matched to the referrals indicated by Medical Expense and Reporting System (MEPRS) code and provider specialty to identify visits that matched the referrals. For referrals that had a matching visit, the time to completion for the referral was calculated in days as the number of days from completion of the DD Form 2796 to the date of the visit.

3.1.3 Data Analysis

The data analysis was conducted using Statistical Analysis System (SAS) version 8.2 statistical software. Data were first analyzed to determine the percentage of the study sample with a completed referral. The data were then analyzed to calculate the time to completion for the completed referrals. The completed referrals were aggregated into 15-day intervals for reporting purposes. Percentages of completed referrals within each 15-day increment were calculated.

3.2 Diagnosis Patterns of Deployment-Related Referrals

This measure described the types of health care conditions that were diagnosed in SMs that were seen for referrals on their return from deployment. The data for this measure consists of the clinical diagnoses for the 202 referrals that were completed. To provide some context for the small data set, the most common types of diagnoses for the entire population of SMs with a referral indicated (n=3,738) were also described, with the caveat that diagnoses described for this larger group of SMs represented all health services received following deployment.

3.2.1 Study Sample

The study sample consisted of the 202 completed referrals among the 477 DD Form 2796s in the study sample from section 3.1.1.

3.2.2 Data Collection

The sample of 477 DD Form 2796s that were used in the referral time to completion analysis was the focus of this analysis. Diagnosis data from the 202 referral visits for this sample were analyzed. Referral visits for both MTF visits (SADRs) and paid claim visits (HCSR-N) were included in the analysis.

3.2.3 Data Analysis

Diagnoses related to post-deployment referrals were analyzed using SAS version 8.2 statistical software. The frequency distribution of the most frequently noted ICD-9-CM code classification groups and the 10 most frequently noted individual diagnoses were reported.

3.3 Use of the V70.5_6 Diagnosis Code in the SADR

The ICD-9-CM diagnosis code V70.5_6 (Post-Deployment Prevention Examinations) is the code designated for all post-deployment exams and conditions directly related to the deployment. The V code is used for AD and NAD beneficiaries. When a beneficiary with a previous deployment is diagnosed with a known condition during a visit, the V code should be listed second (i.e., following the primary diagnosis ICD-9-CM code). When a beneficiary with a previous deployment is diagnosed with an unknown or vague condition, the V code should be listed first (Uniform Biostatistical Utility Working Group, 2002).

3.3.1 Study Population

The study population consisted of all SADR (n=3,724) that contained the ICD-9-CM code V70.5_6 as a primary or secondary diagnosis for a visit that occurred between February 1, 2002 and January 31, 2003.

3.3.2 Data Collection

M2 was queried to obtain a data set containing all outpatient visits with a primary or secondary diagnosis of V70.5_6 that occurred in the DCS during the first year of CPG implementation, February 1, 2002 through January 31, 2003.

3.3.3 Data Analysis

The data analysis was conducted using SAS version 8.2 statistical analysis software. Separate data analyses, including a frequency analysis, were performed on the primary diagnosis visits and the secondary diagnosis visits with the V70.5_6 code. Data were reported by Service, TRICARE Region, duty status, and gender at the aggregate level.

3.4 Post-Deployment Health Clinical Practice Guideline Implementation

3.4.1 Study Population

The sample contained 79 MTFs with a parent Defense Medical Information System (DMIS) Identification (ID) code designation, both inside and outside the continental United States. Seventy MTFs that did not implement the PDH CPG during FY02 were included in the study, as well as nine MTFs, three from each Service, that had implemented the PDH CPG during FY02. OCONUS (Outside the Continental United States) MTFs in Cuba, Turkey and those without inpatient beds were not included in this study.

3.4.2 Data Collection (MTF Outpatient Records Abstraction Procedure)

Records abstractors contacted the Point of Contact (POC) at each MTF in the study population to schedule a site visit for outpatient records abstraction. The abstractors reviewed a convenience sample of 75 outpatient records at a primary care clinic of each MTF. Primary care clinics with the largest monthly visit volume at the MTF, identified using M2, were selected as the location for the records review. The MTF POC and abstracting team mutually agreed upon the locations. The 75 outpatient records reviewed were drawn from outpatient visits that occurred a day or two before the abstractor arrived. Following clinic visits, the records were set-aside for the abstractor instead of being returned to the records room. Abstracted data were entered into a database on a laptop computer. Data collection was conducted April through June 2003, with the exception of one MTF, where scheduling difficulties resulted in an abstraction delay until July 2003.

Data collection included administrative and clinical data. Administrative data included location and date of the visit, beneficiary family member prefix and gender. Clinical data focused on

documentation of the PDH CPG process during the visit. A clinic met the criteria for having begun PDH CPG implementation if the question “Is this visit related to a deployment?” appeared on the SF 600 in the form of an overprinted SF 600 or a hand stamped SF 600, or as a handwritten statement on the SF 600. The contents of the data collection forms are in Appendix B.

3.4.3 Data Analysis

The data analysis was conducted using SAS version 8.2 statistical analysis software. Data analysis included descriptive statistics for MTF implementation of the PDH CPG and patient level data aggregated and reported at the Direct Care System (DCS) level. Supplemental analysis focused on the beneficiaries with an identified deployment-related visit. A measure for the proportion of MTFs with documented PDH CPG implementation was calculated.

4.0 RESULTS

4.1 Time-to-Completion for Deployment-Related Primary Care and Specialty Referrals

Referral analysis was based on a random sample of 477 Post-Deployment Health Assessment forms (DD Form 2796) out of the population of 3,738 Post-Deployment Health Assessment forms on which a referral was identified. Based on the demographic data provided by AMSA for the population of SMs with a referral indicated and the sample for whom DD Form 2796s were available, the sample was judged to be similar to the population from which it was drawn. See Table 1 for the population and sample characteristics.

Table 1. Characteristics of the Referred Population and Sample by Service and Duty Status

| Service/Status | Population | | Sample | |
|---------------------|------------|---------|--------|---------|
| | n | Percent | n | Percent |
| Total | 3,738 | 100.0 | 500 | 100.0 |
| Army | 2,256 | 60.4 | 292 | 58.4 |
| Active duty | 838 | 22.4 | 106 | 21.2 |
| Guard | 901 | 24.1 | 123 | 24.6 |
| Reserve | 517 | 13.8 | 63 | 12.6 |
| Air Force | 1,226 | 32.8 | 166 | 33.2 |
| Active duty | 672 | 18.0 | 83 | 16.6 |
| Guard | 370 | 9.9 | 60 | 12.0 |
| Reserve | 184 | 4.9 | 23 | 4.6 |
| Marine Corps | 56 | 1.5 | 13 | 2.6 |
| Active duty | 55 | 1.5 | 12 | 2.4 |
| Guard | 0 | 0.0 | 0 | 0.0 |
| Reserve | 1 | 0.0 | 1 | 0.2 |
| Navy | 200 | 5.4 | 29 | 5.8 |
| Active duty | 22 | 0.6 | 6 | 1.2 |
| Guard | 0 | 0.0 | 0 | 0.0 |
| Reserve | 178 | 4.8 | 23 | 4.6 |

Note: Data displayed as provided by AMSA

There were 533 referrals recommended for the 477 SM sample. Orthopedic and dental referrals were the most frequent types of referrals recommended. The Other category, while the most frequently used referral category, contained a mixture of referrals and comments. The most frequent Other referrals were to a primary care manager (PCM) (n=129), a Purified Protein Derivative (PPD) test/tuberculosis evaluation or follow-up (n=19), physical therapy (n=15), physical exam (n=14), audiology (n=13) and podiatry (n=12). The distribution of referrals across referral categories is presented in Table 2. Among the 533 referrals that were recommended, records were not available for 76 SMs with dental referrals, nine with VHA referrals, and five others that could not be categorized, reducing to 443 the total number of referrals that could be evaluated in the DCS SADR and paid claims outside of the DCS.

Table 2. Frequency and Type of Referral Recommended on the Post-Deployment Health Assessment

| Type of Referral ¹ | Number of Referrals ² | Referral Percent |
|--|----------------------------------|------------------|
| Cardiac | 1 | 0.19 |
| Combat/Operational Stress Reaction | 2 | 0.38 |
| Dental | 76 | 14.26 |
| Dermatology | 19 | 3.56 |
| ENT | 13 | 2.44 |
| Eye | 16 | 3.00 |
| Family Problems | 2 | 0.38 |
| Fatigue, Malaise, Multisystem Complaint | 3 | 0.56 |
| GI | 7 | 1.31 |
| GU | 12 | 2.25 |
| GYN | 5 | 0.94 |
| Mental Health | 11 | 2.06 |
| Neurologic | 3 | 0.56 |
| Orthopedic | 106 | 19.89 |
| Pregnancy | 3 | 0.56 |
| Pulmonary | 11 | 2.06 |
| Other | 243 | 45.59 |
| Total Referrals | 533 | 100.00 |
| ¹ Referral category as it appeared on the DD Form 2796. | | |
| ² Total number of referrals exceeds the total number of SMs, since SMs may have more than one referral. | | |

Among the 443 opportunities to complete a referral for an SM returning from deployment, 202 referrals were identified in the electronic records, for a 45.7 percent referral completion rate. The time interval required to complete the referrals, once identified, ranged from 0 through 339 days, with a mean and median time for referral completion of 54 and 17.5 days respectively in the DCS and 75 and 49.5 days respectively in the network. The majority of referrals were completed within 30 days; 73 percent were completed in 60 days and over 80 percent were completed within 90 days. See Table 3 for a complete display of the time interval to complete the referrals.

Table 3. Time-to-Completion for Post-Deployment Health Assessment Referrals¹

| Elapsed Interval ^{1,2} (days) | DCS Referrals | Network Referrals | Total Referrals | Percent | Cumulative Frequency | Cumulative Percent |
|---|------------------|----------------------|--------------------|---------|-------------------------|-----------------------|
| 0 - 14 | 86 | 5 | 91 | 45.05 | 91 | 45.05 |
| 15 - 29 | 24 | 1 | 25 | 12.38 | 116 | 57.43 |
| 30 - 44 | 13 | 6 | 19 | 9.41 | 135 | 66.83 |
| 45 - 59 | 11 | 1 | 12 | 5.94 | 147 | 72.77 |
| 60 - 74 | 8 | 1 | 9 | 4.46 | 156 | 77.23 |
| 75 - 89 | 6 | 0 | 6 | 2.97 | 162 | 80.20 |
| 90 - 104 | 2 | 1 | 3 | 1.49 | 165 | 81.68 |
| 105 - 119 | 4 | 0 | 4 | 1.98 | 169 | 83.66 |
| 120 - 134 | 4 | 0 | 4 | 1.98 | 173 | 85.64 |
| 135 - 149 | 1 | 0 | 1 | 0.50 | 174 | 86.14 |
| 150 - 164 | 6 | 2 | 8 | 3.96 | 182 | 90.10 |
| 165 - 179 | 1 | 1 | 2 | 0.99 | 184 | 91.09 |
| 180 - 194 | 1 | 0 | 1 | 0.50 | 185 | 91.58 |
| 195 - 209 | 4 | 0 | 4 | 1.98 | 189 | 93.56 |
| 210 - 224 | 1 | 1 | 2 | 0.99 | 191 | 94.55 |
| 225 - 239 | 0 | 1 | 1 | 0.50 | 192 | 95.05 |
| 240 - 254 | 4 | 0 | 4 | 1.98 | 196 | 97.03 |
| 255 - 269 | 1 | 0 | 1 | 0.50 | 197 | 97.52 |
| 270 - 284 | 0 | 0 | 0 | 0.00 | 197 | 97.52 |
| 285 - 299 | 1 | 0 | 1 | 0.50 | 198 | 98.02 |
| 300 - 314 | 1 | 0 | 1 | 0.50 | 199 | 98.51 |
| 315 - 329 | 2 | 0 | 2 | 0.99 | 201 | 99.50 |
| 330 - 344 | 1 | 0 | 1 | 0.50 | 202 | 100.00 |

¹ Table reports only the 202 referrals that were completed. The table does not include the 241 referrals (54 percent) that were not completed.

²Number of days from completion of the Post-Deployment Health Assessment until the recommended referral is completed.

4.2 Diagnosis Patterns of Deployment-Related Referrals

Outpatient visit diagnosis patterns were examined for the population of SMs seen following deployment for all care and for the referrals for the sample of SMs for whom the type of referral was known. Diagnoses of the entire referral population presented a comprehensive picture of the services used by SMs following deployment. The diagnoses associated with specific referrals for the sample of SMs highlighted those conditions that were linked to the referrals specifically identified at the end of the deployment.

4.2.1 Diagnosis Patterns for All Care

The Army Medical Surveillance Activity (AMSA) identified a population of 3,738 SMs who had referrals recommended on their DD Form 2796 (Post-Deployment Health Assessment Form). This population of SMs was seen for 22,079 outpatient visits in the DCS and 6,157 visits in the network from the time they completed their post-deployment assessment and the end of the study period, January 31, 2003.

For the outpatient visits seen in the DCS, about 44 percent (n=9,775) were for diagnoses in the three-digit diagnosis category Factors Influencing Health Status and Contact with Health Services (ICD-9-CM diagnosis code range V01-V82). Another 19 percent (n=4,195) were seen for diagnoses in the three-digit diagnosis category Diseases of the Musculoskeletal System and Connective Tissue (ICD-9-CM diagnosis code range 710-739), while seven percent (n=1,632) were in the Injury and Poisoning (ICD-9-CM diagnosis code range 800-999) category. The distribution of diagnoses was mirrored in the ten most frequently occurring individual diagnoses. Seven of the top ten diagnoses were in the Factors Influencing Health Status and Contact with Health Services category, with the diagnosis Other Physical Therapy accounting for over seven percent of all diagnoses. See Table 4 for the 10 most frequently assigned diagnoses for DCS visits.

Table 4. Ten Most Frequent Primary Diagnoses Seen in the Direct Care System for Service Members Returning from a Deployment with a Referral Recommendation

| ICD-9-CM Code | Diagnosis | Frequency | Percentage |
|-----------------|---|-----------|------------|
| V57.1 | Other physical therapy | 1,632 | 7.39 |
| V70.5 | Health examination for a defined sub-population | 556 | 2.52 |
| 724.2 | Lumbago | 524 | 2.37 |
| V72.1 | Examination of the ears and hearing | 436 | 1.97 |
| V65.49 | Other counseling, not elsewhere classified | 430 | 1.95 |
| V68.89 | Encounter for other specified administrative purpose | 397 | 1.80 |
| 719.46 | Pain in joint of lower leg | 384 | 1.74 |
| V70.0 | Routine general medical examination at a health care facility | 361 | 1.64 |
| V72.0 | Examination of eyes and vision | 340 | 1.54 |
| 367.1 | Myopia | 306 | 1.39 |
| All other codes | All other diagnoses | 16,713 | 75.70 |
| Total | All diagnosis codes | 22,079 | 100.00 |

Diagnosis patterns were different for SMs seen in the Managed Care Support Contractor network. Over 27 percent (n=1,665) of diagnoses were in the three-digit diagnoses category Symptoms, Signs, and Ill-Defined Conditions (ICD-9-CM diagnosis code range 780-799). Diseases of the Musculoskeletal System and Connective Tissue (ICD-9-CM diagnosis code range 710-739) contained 25 percent (n=1,512) of diagnoses and Injury and Poisoning (ICD-9-CM diagnosis code range 800-999) contained 13 percent (n=787) of visit diagnoses. The most frequently occurring individual diagnosis, Other Ill-Defined Conditions” contained 15 percent (n=921) of the diagnoses. See Table 5 for the 10 most frequently assigned diagnoses for network visits.

Table 5. Ten Most Frequent Primary Diagnoses Seen in the Managed Care Network for Service Members Returning from a Deployment with a Referral Recommendation

| ICD-9-CM Code | Diagnosis | Frequency | Percent |
|-----------------|--|-----------|---------|
| 799.8 | Other ill-defined conditions | 921 | 14.96 |
| 719.41 | Pain in joint, shoulder region | 161 | 2.61 |
| 719.46 | Pain in joint of lower leg | 141 | 2.29 |
| 724.2 | Lumbago | 137 | 2.23 |
| 729.5 | Pain in limb | 96 | 1.56 |
| 786.59 | Chest pain, other | 74 | 1.20 |
| 786.50 | Chest pain, unspecified | 70 | 1.14 |
| 789.00 | Abdominal pain, unspecified site | 60 | 0.97 |
| 728.71 | Plantar fascial fibromatosis | 56 | 0.91 |
| 717.83 | Old disruption of anterior cruciate ligament | 52 | 0.84 |
| All other codes | All other diagnoses | 4,389 | 71.28 |
| Total | All diagnosis codes | 6,157 | 100.00 |

4.2.2 Diagnosis Patterns for Care of Known Referrals

The referral diagnoses were examined for the sample of 477 service members for whom the recommended referrals were known and a record of an outpatient visit for the referral was present. Of the 202 referrals with a diagnosis, the diagnosis of *pain in lower joint of leg* was the most frequently diagnosed condition. It accounted for 11 diagnoses in the DCS and network, combined. Since 147 distinct diagnoses were reported for this group of 202 referrals, the diagnoses were aggregated into diagnosis groups to describe the 182 referrals to the DCS and the 20 referrals to the network. Among the DCS referrals, the diagnosis groups associated with the largest number of referrals were Factors Influencing Health Status and Contact with Health Services (33.52 percent), Diseases of the Musculoskeletal System and Connective Tissue (28.57 percent), Injury and Poisoning (6.04 percent), Symptoms, Signs, and Ill-Defined Conditions (4.95 percent), Mental Disorders (4.40 percent). This distribution was proportionally similar to the distribution of visits for all care of the referral population noted earlier. Among the referrals completed in the network, the diagnosis groups associated with the largest number of referrals were Diseases of the Musculoskeletal System and Connective Tissue (40.00 percent), Injury and Poisoning (15.00 percent), and Diseases of the Respiratory System (15.00 percent).

4.3 Use of the V70.5_6 Diagnosis Code in the SADR

The V70.5_6 code (V code) was used as both a primary and secondary diagnosis code for beneficiaries seen in the DCS during the study period. The V code was used as a primary diagnosis in 2,796 outpatient visits and as a secondary diagnosis in another 928 visits. The 3,724 visits for deployment-related concerns represented about 0.01 percent of the approximately 31 million encounters to the DCS during the study period. Use of the V code to describe outpatient visits was examined in relation to beneficiary characteristics; visit characteristics and treatment MTF affiliation.

4.3.1 Use of the V70.5_6 Code Described by Beneficiary Characteristics

In all, 3,198 beneficiaries were seen on 3,724 outpatient visits for deployment-related concerns. Over 81 percent of visits were by males and nearly 93 percent of visits were by AD personnel. Although visits were overwhelmingly for AD sponsors, about five percent of visits were by dependent spouses and children. Visits by beneficiaries with an enlisted sponsor accounted for 79 percent visits for post-deployment concerns, with 67 percent of all visits by beneficiaries with enlisted sponsors in the grade of E-4 through E-7 (n=2,486). See Table 6 for additional details.

Table 6. Demographic Characteristics of Beneficiaries Seen for Deployment-Related Concerns

| Demographic Characteristic | n | Percentage |
|-----------------------------|-------|------------|
| Overall | 3,724 | 100.00 |
| Gender | | |
| Females | 698 | 18.74 |
| Males | 3,026 | 81.26 |
| Duty Status | | |
| Active | 3,447 | 92.56 |
| Non-Active | 277 | 7.44 |
| Enrolled | 2,842 | 76.32 |
| Not Enrolled | 666 | 17.88 |
| Missing | 216 | 5.80 |
| Family Member Status | | |
| Sponsor | 3,533 | 94.87 |
| Spouse | 118 | 3.17 |
| Child | 67 | 1.80 |
| Other | 6 | 0.16 |
| Sponsor Pay Grade | | |
| Enlisted | 2,942 | 79.00 |
| Officer | 445 | 11.95 |
| Warrant Officer | 55 | 1.48 |
| Missing | 282 | 7.57 |

4.3.2 Use of the V70.5_6 Code Described by Visit Characteristics

The examined V code visit characteristics included: clinical department where the visit occurred, specialty of the provider seen, the evaluation and management category of the visit, and the diagnoses of the visit. Over two thirds of the visits occurred in primary care clinics (e.g., Primary Care, Family Practice, and Flight Medicine) while about 78 percent of all visits were to providers usually associated with primary care (e.g., Family Practice, Physician Assistant, General Medical Officer, Aerospace Medicine, and Nurse Practitioner). While the majority of visits were for office or other outpatient services, nearly 30 percent were for preventive medicine services. See Table 7 for a more detailed description.

Table 7. Visit Characteristics of Beneficiaries Seen for Deployment-Related Concerns

| Visit Characteristic | n | Percentage |
|--|----------|-------------------|
| Overall | 3,724 | 100.00 |
| Clinical Department | | |
| Primary Care | 1,026 | 27.55 |
| Family Practice | 1,008 | 27.07 |
| Flight Medicine | 516 | 13.86 |
| Physical Exam | 439 | 11.79 |
| Behavioral Health | 255 | 6.85 |
| Occupational Health | 153 | 4.11 |
| Community Health | 116 | 3.11 |
| All Others | 211 | 5.67 |
| Provider Specialty | | |
| Family Practice | 1,194 | 32.06 |
| Physician Assistant | 589 | 15.82 |
| General Medical Officer | 479 | 12.86 |
| Aerospace Medicine | 462 | 12.41 |
| Physical Medicine, Rehabilitation and Physical Therapy | 195 | 5.24 |
| Nurse Practitioner | 183 | 4.91 |
| Behavioral Medicine | 164 | 4.40 |
| Other Specialties | 442 | 11.87 |
| Missing | 16 | .43 |
| Evaluation and Management Category | | |
| Office or Other Outpatient Services, New Patient | 597 | 16.03 |
| Office or Other Outpatient Services, Established Patient | 1,671 | 44.87 |
| Consultation | 139 | 3.73 |
| Telephone Consultation | 65 | 1.75 |
| Preventive Medicine Services, New Patient | 120 | 3.22 |
| Preventive Medicine Services, Established Patient | 446 | 11.98 |
| Preventive Medicine, Individual Counseling | 548 | 14.72 |
| All Other Categories | 138 | 3.71 |

Among the 2,796 visits with a V code as the primary diagnosis, 1,039 (37 percent) records contained a secondary diagnosis. The secondary diagnoses that appeared most frequently in the top 10 secondary diagnoses were in the Factors Influencing Health Status and Contact with Health Services (V01-V82) category. The 10 most frequent secondary diagnoses accounted for 40 percent of all secondary diagnoses.

Table 8. Ten Most Frequent Secondary Diagnoses with a Primary Diagnosis of V70.5_6

| ICD-9-CM Code | Diagnosis | Frequency | Percentage |
|-----------------|--|-----------|------------|
| V07.9 | Unspecified prophylactic measure | 73 | 7.03 |
| V65.49_1 | Medication education | 71 | 6.83 |
| V65.49 | Other counseling, not elsewhere classified | 66 | 6.35 |
| V68.9 | Unspecified administrative purpose | 56 | 5.39 |
| V65.5 | Person with feared complaint in whom no diagnosis was made | 29 | 2.79 |
| V68.0 | Issue of medical certificates | 29 | 2.79 |
| V65.40 | Counseling not otherwise specified | 27 | 2.60 |
| V68.89 | Encounter for other specified administrative purpose | 27 | 2.60 |
| 799.8 | Other ill-defined conditions | 22 | 2.12 |
| 296.22 | Major depressive disorder, single episode, moderate | 19 | 1.83 |
| All other codes | All Other Diagnoses | 620 | 59.67 |
| Total | All Diagnosis | 1,039 | 1,00.00 |

For the 928 visits with the V code as a secondary diagnosis, the primary diagnoses were examined. As with the secondary diagnoses, the primary diagnoses contained a wide range of diagnoses, most with low frequencies of occurrence. Diagnoses for mental disorders (ICD-9-CM codes 290-319) accounted for three of the four most frequently listed diagnoses. The 10 most frequent primary diagnoses accounted for about 32 percent of all primary diagnoses of visits with a V code of V70.5_6 as a secondary diagnosis. Refer to Table 9 for a detailed display of the 10 most frequent primary diagnoses with a secondary diagnosis of V70.5_6.

Table 9. Ten Most Frequent Primary Diagnoses with a Secondary Diagnosis of V70.5_6

| ICD-9-CM Code | Diagnosis | Frequency | Percentage |
|-----------------|--|-----------|------------|
| 309.81 | Prolonged post-traumatic stress disorder | 47 | 5.06 |
| 300.02 | Generalized anxiety disorder | 42 | 4.53 |
| V57.1 | Other physical therapy | 40 | 4.31 |
| 309.28 | Adjustment reaction with mixed emotional features | 35 | 3.77 |
| V70.5_1 | Aviation examination | 28 | 3.02 |
| 724.2 | Lumbago | 27 | 2.91 |
| V62.82 | Uncomplicated bereavement | 22 | 2.37 |
| V67.59 | Follow-up examination following other treatment | 20 | 2.16 |
| V65.5 | Person with feared complaint in whom no diagnosis was made | 19 | 2.05 |
| V62.2 | Other occupational circumstances or maladjustment | 16 | 1.72 |
| All Other Codes | All other diagnoses | 632 | 68.10 |
| Total | All diagnoses | 928 | 100.00 |

The secondary diagnoses were also aggregated into diagnosis categories to place the many low frequency diagnoses into some context. Mental disorders (ICD-9 codes 290-319) were diagnosed in 224 (24.14 percent) visits; diseases of the musculoskeletal system and connective tissue (ICD-9 codes 710-739) were diagnosed in 137 (14.76 percent) visits; signs, symptoms, and ill-defined conditions were diagnosed in 98 (10.56 percent) visits; factors influencing health status and contact with health services (V01-V82) were diagnosed in 220 (23.71 percent) visits.

4.3.3 Use of the V70.5_6 Code Described by MTF Affiliation

Approximately 94 percent of all visits for deployment-related concerns were to Army and Air Force sites. Over 55 percent of these visits were to MTFs located in TRICARE Regions 1, 6, and 8. Refer to Table 10 below for details. Additionally 10 MTFs (all Army) accounted for 1,873 (50.30 percent) of the visits.

Table 10. Medical Treatment Facility Affiliation of Visits for Deployment-Related Concerns

| Visit Characteristic | n | Percentage |
|-------------------------|-------|------------|
| Overall | 3,724 | 100.00 |
| Military Service | | |
| Army | 2,514 | 67.51 |
| Navy | 230 | 6.18 |
| Air Force | 980 | 26.32 |
| TRICARE Region | | |
| Northeast (1) | 945 | 25.38 |
| Mid-Atlantic (2) | 125 | 3.36 |
| Southeast (3) | 261 | 7.01 |
| Gulfsouth (4) | 129 | 3.46 |
| Heartland (5) | 308 | 8.27 |
| Southwest (6) | 594 | 15.95 |
| Central (7) | 253 | 6.79 |
| Central (8) | 521 | 13.99 |
| Southern California (9) | 49 | 1.32 |
| Golden Gate (10) | 13 | 0.35 |
| Northwest (11) | 56 | 1.50 |
| Hawaii (12) | 72 | 1.93 |
| Europe (13) | 261 | 7.01 |
| Far East (14) | 15 | 0.40 |
| Caribbean/Canada (15) | 117 | 3.14 |
| Alaska (AK) | 5 | 0.13 |

4.4 Post-Deployment Health Clinical Practice Guideline Implementation

A sample of 79 MTFs with a parent DMIS ID designation was identified for inclusion in the study. Outpatient records abstraction was conducted at 75 of the 79 MTFs to identify documented implementation of the PDH CPG. Three sites were not scheduled for visits because the MTF POCs reported the PDH CPG would not be implemented before the end of the study period. These sites reported that they would implement the PDH CPG in July 2003. One site was dropped from the study after determining that the record abstraction was conducted in a clinic specifically established to examine service members returning from deployment to Iraq.

Outpatient records of 5,629 visits were examined at the 75 study sites. Sponsors accounted for 49.4 percent of the visits, children 18.5 percent and spouses 31.9 percent of the visits. Visits by males accounted for 48.1 percent of the visits. The largest proportions of beneficiaries were seen in Family Practice (67.1 percent) and Primary Care (20.8 percent) Clinics. The deployment-related question, with an answer, was documented for 74.9 percent (n=4,213) of all visits. Beneficiaries identified visits as being deployment-related for 49 (0.9 percent) of the visits. The deployment-related visits resulted in 11 specialty referrals for further care, with no specialty clinic receiving more than one referral.

Among the 75 MTFs where site visits were conducted, 68 MTFs provided documentation of PDH CPG implementation in the outpatient records. Acceptable documentation required that the question “Is this visit deployment-related?” appear on the SF 600 as a computer-generated question, a hand stamped question, or be entered as a narrative comment by the provider or staff. The question appeared as a computer generated question at 38 MTFs and as a hand stamped question at 17 MTFs. A mixture of computer generated, hand stamped and handwritten documentation of the question appeared on the SF 600 at the remaining 13 MTFs where PDH CPG implementation had begun. When the implementing MTFs from this year’s study were added to the implementing MTFs from last year’s study, the total number of MTFs with a parent DMIS ID designation that had implemented the PDH CPG was 126, or 93.3 percent of the 135 sites available for survey.

5.0 SUMMARY AND DISCUSSION

The Post-Deployment Health Care study was conducted to examine two specific areas of deployment-related health care in the Department of Defense (DoD). Two study measures examined the time to completion for referrals indicated- for service members who required follow-up care for a condition that was either acquired or exacerbated during deployment. The first measure described the time interval from identification to completion of a referral indicated. The second measure described the diagnoses of the referrals indicated after they were completed. The study also examined two measures concerned with implementation of the Clinical Practice Guideline for Post-Deployment Health Evaluation and Management (PDH CPG). The first measure described the use of the V70.5_6 diagnosis code to document deployment related visits in the Standard Ambulatory Data Record (SADR). The second measure described the PDH CPG implementation in MTF primary care clinics. Both of these measures were repeat measures from the fiscal year 2002 (FY02) study on post-deployment.

5.1 Timeliness of Deployment-Related Primary Care and Specialty Referrals

The time-to-completion for health care referrals was examined by linking outpatient visits in the Direct Care System (DCS) and the contractor network to the referral recommendation appearing on the Post-Deployment Health Assessment Form (DD Form 2796). The post-deployment health assessment was conducted at the completion of the deployment, before leaving the theater of operations, and documented on the DD Form 2796. Only 46 percent of those with a recommendation completed a referral as documented by a SADR. The referral completion rate for those who completed a referral was 57 percent at 30 days, 73 percent at 60 days and 80 percent at 90 days. If the referral completion rate is calculated for all referrals recommended, then the completion rate drops to 26 percent at 30 days, 33 percent at 60 days and 37 percent at 90 days. Referral completion was generally timely for those who completed the referral, however, no record of care for recommended referrals was found for more than half of those with a referral indicated. Referral completion for SMs following deployment may encounter obstacles that affect either the referral process or its documentation. Factors that affect the referral process may include issues with the assessment form, communicating the need for a referral, or documenting the referral. Any of these factors could affect the administrative data used to calculate the referral completion rate. A brief discussion of the issues with each of these factors follows.

The DD Form 2796 gives the providers conducting the assessment a way to rapidly document care needs within categories. The form does not lend itself detailed documentation, although it is possible to use the form in that fashion. About 46 percent of all referrals on the form were indicated as being *Other*. For the purposes of this study, all forms indicating a referral in the *Other* category were assumed to require a referral. However, examination of the comments for *Other* referrals suggested that the category was not used consistently for recommending referrals. Comments such as *fu sick call* or *fu PCM prn* were counted as sufficient explanation to justify a referral. Other comments were explanatory or documented a condition without making an explicit referral. Still other records had an *Other* referral indicated with no written comments.

The comments, then, were used for a variety of purposes to include general advise, documenting conditions, and providing rationale for making a referral in one of named categories of referral appearing on the form.

Once the need for a referral was documented, it is unclear how the SM was instructed to complete the referral process. Was the referral communicated to the SM's home duty station for follow-up by the local MTF or was the SM expected to complete the follow-up referral process independently? To complete a specialty referral, the SM would normally be required to go to primary care first to obtain a referral. Was there a mechanism in place to bypass or expedite the referral? As a related issue, was the referral that was recommended really necessary or was treatment for the condition within the scope of practice for the PCM? These and other questions concerning local MTF operations could affect how the referral was or was not completed. They represent but a few opportunities for variation in the health care delivery system that may affect referral completion.

Documenting the referral completion required that the SM have a record of an outpatient visit to a clinic where the referral could be completed. As an example, if the SM needed a referral to orthopedics, the referral was counted as complete only when a SADR visit to an orthopedic clinic was recorded. The referral was not counted as complete if the condition being referred was treated and resolved by a PCM. Since little information was available about the conditions that prompted the referrals, it is not possible to determine which conditions might be appropriately managed by a PCM.

Although the documented referral completion rate was 46 percent, about 72 percent of the SMs in the study sample had a documented SADR visit within the DCS following deployment. Although this visit rate cannot confirm that these SMs received treatment for their health conditions identified during deployment, it indicates that they were being seen by health care providers and thus had the opportunity for issues identified on the DD Form 2796 to be discussed with a provider. This underscores an important limitation of the administrative data set used for this study. The referrals were tracked by specialty care location and provider specialty. While the data can be used to confirm that referrals were completed, the data is not as accurate at confirming that a referral was not completed, particularly in the case where a PCM provided appropriate care, obviating the need for a referral. This issue is properly a quality of care issue that can only be examined using the clinical detail provided by the medical record.

5.2 Diagnosis Patterns of Deployment-Related Referrals

Among the SMs with documented visits for referrals, the proportion of visits for the diagnosis groups with the most visits was similar to the visit proportions for all care for the larger referral population without specific referral information. This finding suggests that the sample was similar to the population in the conditions for which they were treated. Over 70 percent of the diagnoses were contained in the Factors Influencing Health Status and Contact with Health Services, Diseases of the Musculoskeletal System and Connective Tissue, and Injury and Poisoning diagnosis groups in the DCS. For network visits, over 70 percent of the diagnoses were contained in the Symptoms, Signs, and Ill-Defined Conditions, Diseases of the

Musculoskeletal System and Connective Tissue, Injury and Poisoning, and Factors Influencing Health Status and Contact with Health Services groups. The major difference between the DCS and network diagnoses appears to be that the DCS used the codes for Factors Influencing Health Status and Contact with Health Services (V01-V82) in 44 percent of diagnoses while network providers used them for six percent of the visits. The network providers used the codes for Symptoms, Signs, and Ill-Defined Conditions (780-799) most often, while these codes were used in five percent of DCS visits. Differences in coding practices between DCS and network providers should be examined in more detail to determine if they are seeing different types of conditions or if they are coding the same conditions differently.

5.3 Use of the V70.5_6 Diagnosis Code in the SADR

The use of V codes to document care received in a direct care outpatient setting was examined to assess the utility of using the deployment-related V code for monitoring the volume and types of deployment-related conditions for which beneficiaries were being seen for in the DCS. The V code was used for only about 0.01 percent of outpatient visits during the study period, a number that is probably low when compared to the number of referral discussed in section 5.1. Both primary and secondary V codes were examined based on the current outpatient visit diagnostic coding guidance described in the Professional Services and Outpatient Coding Guidelines (Uniform Biostatistical Utility Working Group, 2002). The coding guidelines suggest that the V code should be used as primary diagnosis when the person presents with vague or unknown symptoms. The V code should be used as a secondary diagnosis when the person has a known condition. The V code was used as a primary diagnosis in 75 percent of all visits containing the V code. For the 25 percent of diagnosis where the condition was known, the percent distribution of visits by diagnosis group were similar to the distribution seen in referral completions seen earlier. One major difference in this group however was the large percentage of individuals with a Mental Disorders diagnosis (24 percent). These data then are consistent with the data obtained for SMs seen for a referral following deployment. The marked difference in the number of diagnosed mental disorders may be due to the delay in diagnosing these conditions.

5.4 Clinical Practice Guideline for Post-Deployment Health Evaluation and Management (PDH CPG) Implementation

This was the second year that the PDH CPG implementation was examined. The aim of this measure was to demonstrate that all MTFs had begun to implement the PDH CPG. The criteria for determining implementation were quite liberal. Essentially, any written documentation found in the outpatient records that addressed asking the question “Is this visit related to a deployment?” qualified as implementation and yet there were a few MTFs that did not implement the PDH CPG by the end of the study period. Since the study did not intend to examine the quality of the implementation, no implications concerning the quality of services can be made from the finding. Quality of care issues are best addressed in a follow-up study that examines, in some detail, the chain of events that is documented or those beneficiaries who declare that their visit is deployment-related.

Study Limitations

A general study limitation relates to the accuracy of the administrative data on which much of the analysis was based. This is an issue with each study. Additional study limitations concern the appropriate identification of referral completion and incomplete data for referral completion. Referral completion has been discussed previously. In summary, in many cases the administrative data set does not supply sufficiently detailed information to determine whether the referral was completed. This applies to the large number of dental and VHA referrals that had to be excluded from analysis because no data were available. It may also apply to many referrals for which follow-up could not be documented with available data.

The issue of incomplete data refers to ending data collection before some of the referrals were given a reasonable opportunity to be completed. Data collection ended January 2003, so clearly some of the SMs that were identified for referrals in January did not have much opportunity to complete the referral. An examination of data revealed that 15 percent of the study sample was identified during the last three months of the study period. This group represented 10 percent of the completed referrals. Additionally, the group that entered the study in January 2003 would be expected to be the most affected by the short time frame to respond. In that January, six study subjects were identified. Two of those subjects completed their referral. Overall, missing data or a short response frame did not have a large effect on the study referral completion rate.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions based on the study findings include the following:

- The 46 percent referral completion rate can be attributed to complex factors that include:
 - Administrative data with insufficient detail
 - Communication issues between the patient and provider at the individual and organizational level
 - Operational issues that involve, the patient, the in-theater provider, the home base MTF and the home base PCM
- The DD Form 2796 and the administrative data used to track referral completion patterns cannot be used to measure and monitor deployment referral completions at this time
- The use of the V code for deployment-related concerns probably under represents the true occurrence of deployment-related health visits in the DCS
- Implementation of the Clinical Practice Guideline for Post-Deployment Health Evaluation and Management (PDH CPG) has been started throughout most of the DCS

Recommendations based on the study findings include the following:

- Any follow-up to the referral completion portion of this study should capture sufficient detail to confirm referral completion, determine that the referral was unnecessary, or confirm that the condition generating the referral was treated
- The chain of events that make up the referral process should be examined to identify areas that required changes that will facilitate referral completion and create shared responsibility between individual and the health care system
- Any future study of the post-deployment health CPG should change focus to compliance with its recommendations and the quality of care it creates

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ACRONYMS

| | |
|----------|--|
| ACS FHC | ACS Federal Healthcare, Inc. |
| AD | Active Duty |
| AMSA | Army Medical Surveillance Activity |
| CCEP | Comprehensive Clinical Evaluation Program |
| CPG | Clinical Practice Guideline |
| DCS | Direct Care System |
| DMIS | Defense Medical Information System |
| DoD | Department of Defense |
| ENT | Ear, Nose, and Throat |
| FY02 | Fiscal Year 2002 |
| FY03 | Fiscal Year 2003 |
| GI | Gastrointestinal |
| GU | Genitourinary |
| GYN | Gynecology |
| HCSR | Health Care Service Record |
| ICD-9-CM | International Classification of Diseases, 9 th Revision, Clinical Modification (code) |
| ID | Identification |
| IOM | Institute of Medicine |
| M2 | Military Health System Management Analysis and Reporting Tool |
| MHS | Military Health System |
| MEPRS | Medical Expense and Reporting System |
| MTF | Military Treatment Facility |
| NAD | Non-Active Duty |
| NQMP | National Quality Management Program |
| OCONUS | Outside the Continental United States |
| PCM | Primary Care Manager |
| PDH | Post-Deployment Health |
| POC | Point of Contact |
| PPD | Purified Protein Derivative |
| SADR | Standard Ambulatory Data Record |
| SAP | Scientific Advisory Panel |
| SAS | Statistical Analysis System |
| SF | Standard Form |
| SM | Service Member |
| TMA | TRICARE Management Activity |
| V code | V70.5_6 diagnosis code |
| VHA | Veterans Health Administration |
| USACHPPM | U.S. Army Center for Health Promotion and Preventative Medicine |

APPENDIX A

POST-DEPLOYMENT HEALTH ASSESSMENT



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POST-DEPLOYMENT Health Assessment

Authority: 10 U.S.C. 136 Chapter 55. 1074f, 3013, 5013, 8013 and E.O. 9397

Principal Purpose: To assess your state of health after deployment outside the United States in support of military operations and to assist military healthcare providers in identifying and providing present and future medical care to you.

Routine Use: To other Federal and State agencies and civilian healthcare providers, as necessary, in order to provide necessary medical care and treatment.

Disclosure: (Military personnel and DoD civilian Employees Only) Voluntary. If not provided, healthcare WILL BE furnished, but comprehensive care may not be possible.

INSTRUCTIONS: Please read each question completely and carefully before marking your selections. Provide a response for each question. If you do not understand a question, ask the administrator.

Demographics

Last Name

Today's Date (dd/mm/yyyy)

First Name

MI

Social Security Number

Deployed Unit

DOB (dd/mm/yyyy)

Gender

- Male
- Female

Service Branch

- Air Force
- Army
- Coast Guard
- Marine Corps
- Navy
- Other

Component

- Active Duty
- National Guard
- Reserves
- Civilian Government Employee

Date of arrival in theater (dd/mm/yyyy)

Date of departure from theater (dd/mm/yyyy)

Pay Grade

- E1 O1 W1
- E2 O2 W2
- E3 O3 W3
- E4 O4 W4
- E5 O5 W5
- E6 O6 Other
- E7 O7
- E8 O8
- E9 O9
- O10

Location of Operation

- Europe Australia
- SW Asia Africa
- SE Asia Central America
- Asia (Other) Unknown
- South America

Deployment Location (CITY, TOWN, or BASE):

List country (IF KNOWN):

Name of Operation:

Administrator Use Only

Indicate the status of each of the following:

- | Yes | No | N/A | |
|-----------------------|-----------------------|-----------------------|---|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Medical threat debriefing completed |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Medical information sheet distributed |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Post-Deployment serum specimen collected, if required |

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DD FORM 2796, MAY 1999

ASD (HA) APPROVED SEPTEMBER 1998 Ver 1.3





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PLEASE FILL IN SOCIAL SECURITY #

□□□□ - □□ - □□□□□□

Health Assessment

- 1. Would you say your health in general is: Excellent Very Good Good Fair Poor
- 2. Do you have any unresolved medical or dental problems that developed during this deployment? Yes No
- 3. Are you currently on a profile or light duty? Yes No
- 4. During this deployment have you sought, or intend to seek, counseling or care for your mental health? Yes No
- 5. Do you have concerns about possible exposures or events during this deployment that you feel may affect your health? Yes No

Please list your concerns:

- 6. Do you currently have any questions or concerns about your health? Yes No

Please list your concerns:

Service Member Signature

I certify that responses on this form are true.

Post-Deployment Health Provider Review (For Health Provider Use Only)

After interview/exam of patient, the following problems were noted and categorized by Review of Systems. More than one may be noted for patients with multiple problems. Further documentation of problem to be placed in medical records.

REFERRAL INDICATED

- None
- Cardiac
- Combat / Operational Stress Reaction
- Dental
- Dermatologic
- ENT
- Eye
- Family Problems
- Fatigue, Malaise, Multisystem complaint

- GI
- GU
- GYN
- Mental Health
- Neurologic
- Orthopedic
- Pregnancy
- Pulmonary
- Other _____

EXPOSURE CONCERNS (During deployment)

Provider see questions 5&6 on this form

- Environmental
- Occupational
- Combat or mission related
- None

Comments:

I certify that this review process has been completed.

Provider's signature and stamp:

Date (dd/mm/yyyy)

□□ / □□ / □□□□

End of Health Review



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APPENDIX B

ABSTRACTION DATA ENTRY FIELDS AND GUIDANCE FOR ABSTRACTORS

ADMINISTRATIVE DATA FIELDS

| Data Entry Field | Data Entry Expectations | Description/Explanation of Field | Abstraction Instructions |
|----------------------|---|--|--|
| SSN (Required) | 9 digit number | Social Security Number | Enter SSN from medical record of client. |
| FMP (Required) | 2 digit number | Family Member Prefix | Enter FMP # from medical record of client. |
| DMIS# (Required) | 4 digit number (Drop Down Box) | Defense Medical Information System | Refer to list and choose appropriate number for facility. (This number may be used to identify the facility for the facility report.) |
| MEPRS# (Required) | 4 letter code | Medical Expense and Performance Reporting System | Select appropriate # from list. |
| Date of Visit | mm/dd/yyyy | This is the date of the client visit. | Enter date of the visit. |
| Gender (Required) | 1 = Male; 2 = Female; 3 = Unknown (Drop Down Box or enter number) | This is the gender of the client. | Enter the gender of the client from the medical record. |

CLINICAL DATA FIELDS

| Questions | Potential Answers | Goal of Question | Explanation/Discussion |
|--|---|--|---|
| <p>1. Select the format used for asking the question “Is this a post-deployment visit?” (Required)</p> | <p>1 = Computer generated form in record; (this is called the Automated SF600 form)</p> <p>2 = Stamped in record on SF600 form;</p> <p>3 = Narrative Statement on SF600 form;</p> <p>4 = N/A</p> <p>5 = DD Form 2844</p> <p><i>Any answer to this question will take you to Q2. However, if answer to Q1= 5, a “1” will be automatically placed in Q3 so you don’t have to data enter twice.</i></p> | <p>This question will be used to document the format of the question used to trigger the provider to ask if the visit was a post-deployment related visit for the client at the clinic.</p> <p>(Are MTFs using items from their “Tool Box?”)</p> | <p>Choose the description that reflects information found in the medical record. Only one can be recorded. If more than one of the potential answers appears in the medical record, choose in hierarchy as listed in options. Example: if both 1 and 3 are valid –enter 1.</p> <p>The appearance of the SF600 form may be different depending on the Branch and/or Specialty (i.e., Ophthalmology may have eye diagrams printed on the form, Orthopedics by have body diagrams, etc.) The appearance of the form is not as important as the NAME of the form. Therefore, abstractors should look for the name of the form, when answering this question.</p> <p>The DD Form 2796 (mentioned on the DD Form 2844) is not consistently used within the DoD, and therefore is not included in as a data element to be collected in this study.</p> |

| Questions | Potential Answers | Goal of Question | Explanation/Discussion |
|--|--|---|--|
| <p>2. Is this visit post-deployment related? (Required)</p> | <p>1 =Yes; 2 = No; 3 = Unknown; 4 = Maybe.</p> <p><i>If Q2=1, 3 or 4, go to Q3.</i></p> <p><i>If Q2=2; then Q3-6 will auto-fill and you will skip to Q7 (FA #)</i></p> | <p>This question will be used to determine if the documentation captures the deployment-related visits.</p> | <p>Determine if the clinic visit you are reviewing was deployment-related or not.</p> <p>Answer appropriately. Documentation in the medical record must specifically indicate “Maybe” in order to select this answer; otherwise the answer is “Unknown.”</p> |
| <p>3. Is DD Form 2844 present? (Required)</p> | <p>1 = Yes; 2 = No; 3 = Unknown.</p> <p><i>If Q3=1 go to Q4.</i> <i>If Q3=2 or 3; then Q4 will auto-fill and you will skip to Q5.</i></p> | <p>This question is to capture if the DD Form 2844 is in the record.</p> <p>(Are MTFs using items from their “Tool Box?”)</p> | <p>This is a required field that will not be skipped over.</p> |

| Questions | Potential Answers | Goal of Question | Explanation/Discussion |
|--|---|---|--|
| <p>4. If DD Form 2844 present (Q3=Y), Was a referral to a specialty clinic made? (Required)</p> | <p>1 = Yes; referral made; 2 = No referral not made; 3 = Unknown 4 =Form present but not completed 5 = N/A</p> <p><i>If Q4 =1; then Q5 will auto-fill and you will skip to Q6.</i></p> <p><i>If Q4=2,3 or 4; then Q5 & Q6 will auto-fill and you will skip to Q7 (FA#)</i></p> | <p>This question is to be answer to determine if the DD2844 form was used to coordinate the referral process.</p> <p>Note: every visit that is post-deployment related, may not result in a referral, so therefore the answer to this question may be “no.”</p> | <p>If you answered, “Yes” to DD form 2844 present, answer this question.</p> <p>If you answered “No” to DD form 2844 present (Q3), skip this question and go to Q#5.</p> <p>See Part E-Referral on the DD Form 2844.</p> |
| <p>5. If DD Form 2844 is not present (Q3= No or Unknown), Was a referral to a specialty clinic made? (Required)</p> | <p>1 = Yes; 2 = No; 3 = Unknown; 4 = N/A</p> <p><i>If Q5=1 then go to Q6.</i></p> <p><i>If Q5= 2,3 or 4 then Q6 will auto fill and you will skip to Q7 (FA#)</i></p> | <p>This question is to track whether or not a referral was made during a post-deployment visit, yet the DD Form 2844 is not being used.</p> | <p>If you answered “No” to DD Form 2844 present (Q3), answer this question.</p> |

| Questions | Potential Answers | Goal of Question | Explanation/Discussion |
|--|---|--|---|
| <p>6. If referral to another specialty clinic (Q 4 or Q5 = Y), Enter what specialty clinic was the patient to. (Required)</p> | <p>Enter clinic specialty such as: Cardiology; Orthopedics Ophthalmology Endocrinology</p> <p><i>Free Text Field</i> <i>NOTE: Enter Specialty clinic not physician name.</i></p> | <p>This question will identify the specialty clinic clients are referred to.</p> | <p>If you answered, “Yes” to DD form 2844 present, Is this visit post-deployment related (Q2), and “Yes” a referral was made (Q4 or 5), answer this question.</p> <p>This information should be found on the DD Form 2844 or the Automated SF600 Form, but could be found within the provider’s documented narrative notes.</p> |
| <p>7. FA Number (Required)</p> | <p>2 digit number (Drop Down Box)</p> | <p>The number used to identify whom to reimburse for the abstractions.</p> | <p>Enter your FA number assigned by WVMI.</p> |